

**DATA COMPRESSION SYSTEM**

**Abstract of the Disclosure**

5           A data compression scheme implemented based on V.42bis implemented  
in hardware within mobile units of a cellular system is disclosed. The data  
compression scheme includes a number of hardware state machines that perform  
data compression and decompression functions. Additionally, a dictionary of  
codewords and character strings is organized according to keys and is  
10 implemented as a balanced binary tree.